

INTERNATIONAL BACCALAUREATE COURSES

Academic Content Standards for all courses at <http://www.doe.in.gov/standards/welcome2.html>

Teacher requirements: <http://doe.in.gov/dps/licensing/assignmentcode>

International Baccalaureate: <http://www.ibo.org/programmes/pd/index.cfm>

BIOLOGY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

3032

(BIO H IB)

Biology Higher Level, International Baccalaureate focuses on six core topics: cells, the chemistry of life, genetics, ecology, evolution, and human health and physiology. Students must complete additional study in eight topics: nucleic acids and proteins, cell respiration and photosynthesis, human reproduction, defense against infectious disease, nerves, muscles and movement, excretion, and plant science. Optional course topics for students include diet and human nutrition, physiology of exercise, neurobiology and behavior, applied plant and animal science, and ecology and conservation.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills the Biology I requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

BIOLOGY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

3034

(BIO S IB)

Biology Standard Level, International Baccalaureate focuses on six core topics: cells; the chemistry of life, genetics, ecology, evolution, and human health and physiology. Optional course topics include neurobiology and behavior, applied plant and animal science, ecology and conservation, diet and human nutrition, physiology of exercise, and cell respiration and photosynthesis.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills the Biology I requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

BUSINESS AND MANAGEMENT HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

4580

(BUSM H IB)

Business and Management Higher Level, International Baccalaureate explores how and why individuals form organizations, organizational problems and life cycles, and the role of

individuals and groups within organizations. Students gain a broad understanding of the variety of organizations that exist, including profit and non-profit, and will examine and apply the principles of organizations and the techniques practiced in organizational decision making. Students also develop an understanding of the interdependency of organizations and the effect on problem solving.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as an Elective or Directed Elective for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- A Career Academic Sequence, Career-Technical program or Flex Credit course

**BUSINESS AND MANAGEMENT STANDARD LEVEL, INTERNATIONAL
BACCALAUREATE**
(BUSM S IB)

4582

Business and Management Standard Level, International Baccalaureate examines the role of individuals and groups in forming organizations and their roles within organizations. Students gain a broad understanding of the variety of organizations that exist, including profit and non-profit, and the problems and life cycles of these organizations. This course develops an understanding of the interdependency of organizations, the effect of problem solving, and the application of organizational principles and techniques widely practiced in the process of decision making.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective or Directed Elective for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- A Career Academic Sequence, Career-Technical program or Flex Credit course

CHEMISTRY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
(CHEM H IB)

3070

Chemistry Higher Level, International Baccalaureate is designed to introduce students to the theories and practical techniques involved in the composition, characterization, and transformation of substances. As the central science, the chemical principles investigated underpin both the physical world in which we live and all biological systems. Students study eleven core topics: stoichiometry, atomic theory, periodicity, bonding, states of matter, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction, and organic chemistry. Students must complete additional study in nine topics: atomic theory, periodicity, bonding, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction, and organic chemistry. Optional course topics include medicines and drugs, human biochemistry, environmental chemistry, chemical industries, and fuels and energy. Additional options are modern analytical chemistry and further organic chemistry.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester

- Fulfills a Chemistry I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and a Science Course requirement of the General and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

CHEMISTRY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
 3072 (CHEM S IB)

Chemistry Standard Level, International Baccalaureate is designed to introduce students to the theories and practical techniques involved in the composition, characterization, and transformation of substances. As the central science, the chemical principles investigated underpin both the physical world in which we live and all biological systems. Students study eleven core topics: stoichiometry, atomic theory, periodicity, bonding, states of matter, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction, and organic chemistry. Optional course topics include medicines and drugs, human biochemistry, environmental chemistry, chemical industries, and fuels and energy. Higher physical organic chemistry is a further option.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Chemistry I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and a Science Course requirement of the General and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

CLASSICAL LANGUAGE HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
 2300 (CL H IB).

Classical Language Higher Level, International Baccalaureate is a language course for the study of Latin or Classical Greek and introduces students to the language, literature, and culture of ancient Greece or Rome. The course promotes the acquisition of language skills as the foundation of the course and provides students the opportunity to study surviving texts in the original language, as well as additional texts in translation. Additionally, the course develops in students an appreciation of the cultural achievements of ancient Greek or Roman society.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a World Language Course for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an Elective or Directed Elective for any diploma
- A Career Academic Sequence or Flex Credit course

CLASSICAL LANGUAGE STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
 2302 (CL S IB)

Classical Language Standard Level, International Baccalaureate is a language course for the study of Latin or Classical Greek and introduces students to the language, literature, and culture of ancient Greece or Rome. The course promotes the acquisition of language skills as the foundation of the course and provides students the opportunity to study surviving texts in the

original language, as well as additional texts in translation. Additionally, the course develops in students an appreciation of the cultural achievements of ancient Greek or Roman society.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a World Language Course for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an Elective or Directed Elective for any diploma
- A Career Academic Sequence or Flex Credit course

COMPUTER SCIENCE HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
4584 (COMPSCI H IB)

Computer Science Higher Level, International Baccalaureate guides students through problem solving strategies and definitions to the construction of algorithms to create solutions, thereby developing skills of logic and analytical thinking. The common core includes: systems life cycle and software development, program construction in Java, computing system fundamentals, a case study, and a program dossier. Additional material may include computer mathematics and logic, abstract data structure and algorithms, further system fundamentals, file organization, and an extended case study.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a Mathematics Course for the International Baccalaureate diploma or as an Elective or Directed Elective for any diploma
- A Career Academic Sequence, Career-Technical program or Flex Credit course

COMPUTER SCIENCE STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
4586 (COMPSCI S IB)

Computer Science Standard Level, International Baccalaureate guides students through problem solving strategies and definitions to the construction of algorithms to create solutions, thereby developing skills of logic and analytical thinking. The common core includes: systems life cycle and software development, program construction in Java, computing system fundamentals, a case study, and a program dossier.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Mathematics Course for the International Baccalaureate diploma or as an Elective or Directed Elective for any diploma
- A Career Academic Sequence, Career-Technical program or Flex Credit course
- Applies to Core 40 math required during junior or senior year

DANCE HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
4144 (DNC H IB)

Dance Higher Level, International Baccalaureate is new to the International Baccalaureate Diploma Programme and does not yet have a description from the organization.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester

- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

DANCE STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

4148

(DNC S IB)

Dance Standard Level, International Baccalaureate is new to the International Baccalaureate Diploma Programme and does not yet have a description from the organization.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

DESIGN TECHNOLOGY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

4822

(DTEC H IB)

Design Technology Higher Level, International Baccalaureate aims to teach students not only design and technology, but also how to adapt to new experiences and how to approach problems with the appropriate skills and techniques to identify important elements and develop optimum solutions. It assumes no previous experience in either design technology or designing. Students study six core topics: designers and the design cycle, the responsibility of the designer, materials, manufacturing processes and techniques, production systems, and clean technology and green design. Students must complete additional study in three topics: raw material to final product, microstructures and macrostructures, and appropriate technologies. Optional course topics from which the student may choose two include: food technology, computer-aided design, manufacture and production, invention, innovation and design, health by design, and electronic products.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as an Elective or Directed Elective for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- A Career Academic Sequence, Career-Technical program or Flex Credit course

DESIGN TECHNOLOGY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

4824

(DTEC S IB)

Design Technology Standard Level, International Baccalaureate aims to teach students not only design and technology, but also how to adapt to new experiences and how to approach problems with the appropriate skills and techniques to identify important elements and develop optimum solutions. It assumes no previous experience in either design technology or designing. Students study six core topics: designers and the design cycle, the responsibility of the designer, materials, manufacturing processes and techniques, production systems, and clean technology and green design. Optional course topics from which the student may choose two are food technology, computer-aided design, manufacture and production, invention, innovation

and design, health by design, and electronic products. Further options include raw material to final product, microstructures and macrostructures, and appropriate technologies.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective or Directed Elective for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- A Career Academic Sequence, Career-Technical program or Flex Credit course

ECONOMICS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

1580

(ECON H IB)

Economics Higher Level, International Baccalaureate promotes disciplined economic reasoning skills and enables students to apply the tools of economic analysis to situations and data, explaining findings in a clear manner. Students will gain an understanding of how societies and individuals organize themselves in the pursuit of economic objectives while also evaluating economic theories, concepts, situations, and data. An international perspective fosters tolerance and understanding of the diversity of economic realities in which society functions.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas, a Social Studies requirement for the General Diploma, or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

ECONOMICS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

1582

(ECON S IB)

Economics Standard Level, International Baccalaureate promotes economic reasoning skills and enables students to analyze and explain data, situations, and findings in a clear manner. Understanding how individuals and societies organize themselves in pursuit of economic objectives is essential, as well as gaining an understanding of international perspectives promoting the understanding of the diversity of economic realities of individuals and societies. Students will evaluate economic theories, situations, concepts, and data.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills the Economics requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas, a Social Studies requirement for the General Diploma, or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

ENVIRONMENTAL SYSTEMS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

3014

(ENVS S IB)

Environmental Systems Standard Level, International Baccalaureate provides students with a coherent perspective on the environment that is essentially scientific and enables them to adopt an informed and responsible stance on the wide range of environmental issues they will

inevitably come to face. The core of Environmental Systems is five broad topics: systems and models, the ecosystem, global cycles and physical systems, human population and carrying capacity, and analyzing ecosystems. Students are required to complete one of the following options: analyzing ecosystems, impacts of resource exploitation, conservation and biodiversity, and pollution management.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Life Science Course for the General diploma or as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

FILM HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

4270 (FILM H IB)

Film Higher Level, International Baccalaureate is new to the International Baccalaureate Diploma Programme and does not yet have a description from the organization.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

FILM STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

4272 (FILM S IB)

Film Standard Level, International Baccalaureate is new to the International Baccalaureate Diploma Programme and does not yet have a description from the organization.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

FURTHER MATHEMATICS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

2580 (FMATH S IB)

Further Mathematics Standard Level, International Baccalaureate includes geometry topic and four Mathematics Higher Level option topics: statistics and probability; sets, relations and groups; series and differential equations; and discrete mathematics.

- Recommended Grade Level: Grades 11 and 12
- Recommended prerequisites: students will have studied one of the four option topics from Mathematics Higher Level
- Credits: 2 semester course, 1 credit per semester
- Counts as a junior or senior Mathematics Course for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

GEOGRAPHY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
(GEO H IB)

1584

Geography Higher Level, International Baccalaureate is the compulsory study of geography at a higher level including the core themes of population and resources and development. Other optional themes for further study include topographic mapping, globalization, management of specific environments, and contemporary issues.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma.
- A Career Academic Sequence or Flex Credit course

GEOGRAPHY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
(GEO S IB)

1586

Geography Standard Level, International Baccalaureate is a basic study of the core themes of population and resources and development. Optional themes for further study include topographic mapping, globalization and contemporary issues, and the management of specific environments.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma
- A Career Academic Sequence or Flex Credit course

HISTORY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
(HIS H IB)

1590

History Higher Level, International Baccalaureate promotes the understanding of the nature and diversity of history and its methods and interpretations. Students develop an international awareness and understanding and the ability to use and communicate historical knowledge. The course includes one prescribed subject from a choice of three and two 20th century world history topics from a choice of six. Regional options include Africa, the Americas, East and South East Asia and Oceania, Europe, and South Asia and the Middle East.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills the US History requirement only with regional concentration on the Americas for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

HISTORY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
(HIS S IB)

1592

History Standard Level, International Baccalaureate promotes the understanding of the nature and diversity of history and its methods and interpretations. Students develop an international awareness and understanding and the ability to use and communicate historical knowledge. The course includes one prescribed subject from a choice of three and two 20th century world history topics from a choice of six.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an Elective for any diploma.
- A Career Academic Sequence or Flex Credit course

INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
 5242 (ITGS H IB)

Information Technology in a Global Society Higher Level, International Baccalaureate examines the interaction between information, technology, and society. Students develop an understanding of the advantages and disadvantages of new technologies as methods of expanding knowledge of the world at local and global levels. They analyze and evaluate the ethical considerations arising from the widespread use of information technology and are encouraged to recognize that people can hold diverse opinions about the impact of technology. The course also promotes an understanding of the social significance of information technology for individuals, communities, and organizations.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as an Elective or Directed Elective for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- A Career Academic Sequence, Career-Technical program or Flex Credit course

INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
 5246 (ITGS S IB)

Information Technology in a Global Society Standard Level, International Baccalaureate examines the interaction between information, technology, and society and develops an understanding of the advantages and disadvantages of new technologies as methods of expanding knowledge of the world at global and local levels. Students gain an understanding of the social significance of information technology and recognize that people can hold diverse opinions about the impact of information technology on individuals and societies. The course also enables students to analyze and evaluate ethical considerations arising from the widespread use of information technology on all levels.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Counts as an Elective or Directed Elective for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas
- A Career Academic Sequence, Career-Technical program or Flex Credit course

ISLAMIC HISTORY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
1594 (IHIS H IB)

Islamic History Higher Level, International Baccalaureate is designed to provide students with the means of acquiring a deep and open understanding of the Islamic world in its various aspects and of its contribution to world civilization. Approached from an historical perspective, the course includes political, social, economic, intellectual, and other facets of the Islamic world. Students study a prescribed topic and at least two historical topics relating to the origins of Islam and its developments through to AH 807/AD 1405. Students must undertake at least two of the following options: the Fatimids, the Ottomans, warfare in the medieval Islamic world, Muslim rule in Spain, the intellectual legacy of Islam, and Islamic art and architecture.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma
- A Career Academic Sequence or Flex Credit course

ISLAMIC HISTORY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
1596 (IHIS S IB)

Islamic History Standard Level, International Baccalaureate is designed to provide students with the means of acquiring a deep and open understanding of the Islamic world in its various aspects and of its contribution to world civilization. Approached from an historical perspective, the course includes political, social, economic, intellectual, and other facets of the Islamic world. Students study a prescribed topic and at least two historical topics relating to the origins of Islam and its developments through to AH 807/AD 1405.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma
- A Career Academic Sequence or Flex Credit course

LANGUAGE A1 HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
1130 (LA A1H IB)

Language A1 Higher Level, International Baccalaureate is a pre-university literature course in the student's native or best language. Language A1 promotes an appreciation of literature and knowledge of the student's own culture, along with that of other societies, and develops the student's powers of expression, both in oral and written communication. The course emphasizes the skills involved in writing and speaking in a variety of styles and situations and offers the student the opportunity to read 11-15 works grouped by genres. Works are chosen from a broad list of prescribed authors and works representing different literary periods, genres, and regions in the target language, as well as literature in translation.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester

- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

LANGUAGE A1 STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
 1132 (LA A1S IB)

Language A1 Standard Level, International Baccalaureate is a pre-university literature course in the student's native or best language. Language A1 promotes an appreciation of literature and knowledge of the student's own culture along with that of other societies and develops the student's powers of expression, both in oral and written communication. The course emphasizes the skills involved in writing and speaking in a variety of styles and situations and offers the student the opportunity to read 11-15 works grouped by genres. Works are chosen from a broad list of prescribed authors and works representing different literary periods, genres, and regions in the target language, as well as literature in translation.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

MATHEMATICS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
 2582 (MATH H IB)

Mathematics Higher Level, International Baccalaureate includes seven core topics: algebra, functions and equations, circular functions and trigonometry, matrices, vectors, statistics and probability, and calculus. In addition, students also must complete one of the following four options: statistics and probability, sets, relations and groups, series and differential equations, or discrete mathematics.

- Recommended Grade Level: Grades 11 and 12
- Recommended prerequisites: students should have a strong understanding of arithmetic, algebra, geometry, trigonometry and statistics.
- Credits: 4 semester course, 1 credit per semester
- Counts as a junior or senior year Mathematics Course as required for Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

MATHEMATICS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
 2584 (MATH S IB)

Mathematics Standard Level, International Baccalaureate includes seven core topics: algebra, functions and equations, circular functions and trigonometry, matrices, vectors, statistics and probability, and calculus.

- Recommended Grade Level: Grades 11 and 12

- Recommended prerequisites: students should have a good understanding of arithmetic, algebra, geometry, trigonometry, and statistics.
- Credits: 2 semester course, 1 credit per semester
- Counts as a junior or senior Mathematics Course for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

MATHEMATICAL STUDIES STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
2586 (MA ST S IB)

Mathematical Studies Standard Level, International Baccalaureate includes eight core topics: introduction to the graphic display calculator, number and algebra, sets, logic and probability, functions, geometry and trigonometry, statistics, introductory differential calculus, and financial mathematics.

- Recommended Grade Level: Grades 11 and 12
- Recommended prerequisites: students should have a good understanding of basic arithmetic, algebra, geometry, and trigonometry.
- Credits: 2 semester course, 1 credit per semester
- Counts as a junior or senior Mathematics Course for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

MUSIC HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
4212 (MUS H IB)

Music Higher Level, International Baccalaureate promotes a greater awareness and understanding of the power and variety of musical experiences for students who have a general interest in music, and also for students who intend to continue their formal study of music at university or conservatoire level. It exposes students to a broad spectrum of music, ranging from classical and modern western traditions to the music of other regions and cultures. The course balances the creative and practical aspects of music with the theoretical or academic. Students study musical perception and analysis, enabling them to undertake studies of a wide range of musical genres and styles. Students also participate in the creation of music through compositions or performance. There are three compulsory parts: musical perception and analysis; vocal or instrumental solo performance—one or more recitals; and composition—three contrasting compositions. Musical perception and analysis is a part of the syllabus common to all course options and consists of three elements: study of prescribed works; study of musical genres and styles; and musical investigation.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

MUSIC STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

Music Standard Level, International Baccalaureate promotes a greater awareness and understanding of the power and variety of musical experiences for students who have a general interest in music, and also for students who intend to continue their formal study of music at university or conservatoire level. It exposes students to a broad spectrum of music, ranging from classical and modern western traditions to the music of other regions and cultures. The course balances the creative and practical aspects of music with the theoretical or academic. Students study musical perception and analysis, enabling them to undertake studies of a wide range of musical genres and styles. Students also participate in the creation of music through compositions or performance. There are three compulsory parts: solo performance option for the student who has a background in musical performance, including musical perception and analysis; and vocal or instrumental solo performance—one or more recitals; group performance option for students with a general interest in music, or for those without prior experience, particularly members of ensembles, including musical perception and analysis and group performance—two or more public performances; and a composition option for the student who has a background in musical composition, including musical perception and analysis and composition—two contrasting compositions. Musical perception and analysis is a part of the syllabus common to all course options and consists of three elements: study of prescribed works; study of musical genres and styles; and musical investigation.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

PHILOSOPHY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

1600

(PHIL H IB)

Philosophy Higher Level, International Baccalaureate develops in students an intellectually independent and creative way of thinking and encourages students to relate their philosophical understanding to other disciplines and to personal and civic life. Students learn to formulate arguments in rational and logical ways and are encouraged to critically examine their own experiences and ideological and cultural biases. This course promotes an awareness of the plurality of philosophical traditions and develops ways of thinking that draw on personal reflection and knowledge of philosophical traditions.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma
- A Career Academic Sequence or Flex Credit course

PHILOSOPHY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

1602

(PHIL S IB)

Philosophy Standard Level, International Baccalaureate develops in students an intellectually independent and creative way of thinking and encourages students to relate their philosophical understanding to other disciplines and to personal and civic life. Students learn to formulate

arguments in rational and logical ways and are encouraged to critically examine their own experiences and ideological and cultural biases. This course promotes an awareness of the plurality of philosophical traditions and develops ways of thinking that draw on personal reflection and knowledge of philosophical traditions.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma
- A Career Academic Sequence or Flex Credit course

PHYSICS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

3096 (PHY H IB)

Physics Higher Level, International Baccalaureate is designed to introduce students to the laws of physics, the experimental skills required in physics, and the social and historical aspects of physics as an evolving body of human knowledge about nature. Students study six topics: physics and physical measurement, mechanics, thermal physics, waves, electricity and magnetism, and atomic and nuclear physics. Students must complete additional study in six topics: measurement and uncertainties, mechanics, thermal physics, wave phenomena, electromagnetism, and quantum physics and nuclear physics. Optional course topics from which the student may only choose two include biomedical physics, the history and development of physics, astrophysics, relativity, and optics.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills a Physics I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and a Science Course requirement of the General and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

PHYSICS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

3098 (PHY S IB)

Physics Standard Level, International Baccalaureate is designed to introduce students to the laws of physics, the experimental skills required in physics, and the social and historical aspects of physics as an evolving body of human knowledge about nature. Students study six topics: physics and physical measurement, mechanics, thermal physics, waves, electricity and magnetism, and atomic and nuclear physics. Students must complete additional study in six topics: measurement and uncertainties, mechanics, thermal physics, wave phenomena, electromagnetism, and quantum physics and nuclear physics. Optional course topics from which the student may choose two include biomedical physics, the history and development of physics, astrophysics, relativity, and optics. Further options would be mechanics extension, quantum physics, nuclear physics, and further energy.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Physics I requirement for the Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and a Science Course requirement of the General and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

PSYCHOLOGY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

1604

(PSY H IB)

Students in Psychology Higher Level, International Baccalaureate study the biological, cognitive, learning, and humanistic perspectives of psychology and must study two of the following: comparative psychology, cultural psychology, dysfunctional behavior, health psychology, lifespan psychology, psychodynamic psychology, or social psychology. All aspects of research in the field, including ethics, qualitative and quantitative research, and experimental study are included. Students are also required to design and implement three experimental studies.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma
- A Career Academic Sequence or Flex Credit course

PSYCHOLOGY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

1606

(PSY S IB)

Psychology Standard Level, International Baccalaureate is divided into four required parts: biological, cognitive, learning, and humanistic psychology. Students must fulfill two options in the following areas: comparative psychology, cultural psychology, psychology of dysfunctional behavior, health psychology, lifespan psychology, psychodynamic psychology, or social psychology. The research methodology of ethics and qualitative and quantitative research must be undertaken and students must design and implement three experimental studies.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma
- A Career Academic Sequence or Flex Credit course

SOCIAL AND CULTURAL ANTHROPOLOGY HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

1608

(SCAN H IB)

Social and Cultural Anthropology Higher Level, International Baccalaureate focuses on the comparative study of culture and human societies and includes the three compulsory themes of social organization, systems of belief and knowledge, and processes of change and transformation. Students at the higher level must also study six fundamental theoretical issues: materialism and idealism, agency centered and structure-centered approaches, particularistic and universalistic perspectives, synchronic and diachronic perspectives, cohesion and conflict, and relation to empirical material.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma

- A Career Academic Sequence or Flex Credit course

SOCIAL AND CULTURAL ANTHROPOLOGY STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

1610 (SCAN S IB)

Social and Cultural Anthropology Standard Level, International Baccalaureate focuses on the comparative study of culture and human societies. There are three basic themes: social organization, systems of belief and knowledge, and processes of change and transformation.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a Social Studies Course for the General diploma or as an elective for any diploma
- A Career Academic Sequence or Flex Credit course

THEATRE ARTS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

4262 (THTR H IB)

Theatre Arts Higher Level, International Baccalaureate aims to help students understand the nature of the theatre by making it as well as by studying it, and to understand the forms it takes in other cultures. Students are expected to demonstrate the following knowledge and skills: a knowledge of the major developments and techniques in the theatrical history of more than one culture; an ability to interpret and illuminate play scripts and other theatrical texts analytically and imaginatively; an understanding of the art of the stage and of the essential nature of criticism in the theatre, particularly self-criticism; an ability to perform before an audience, and to demonstrate an understanding of, and some skill in, acting techniques; sufficient technical skill to produce satisfactory work in at least one of the theatrical arts or crafts; an understanding of the processes of theatrical production; and an ability to research imaginatively, selectively and with persistence. All students must study five compulsory components: performance skills; world theatre studies; practical play analysis; theatre production; and an individual project.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

THEATRE ARTS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE

4264 (THTR S IB)

Theatre Arts Standard Level, International Baccalaureate aims to help students understand the nature of the theatre by making it as well as by studying it, and to understand the forms it takes in other cultures. Students are expected to demonstrate the following knowledge and skills: a knowledge of the major developments and techniques in the theatrical history of more than one culture; an ability to interpret and illuminate play scripts and other theatrical texts analytically and imaginatively; an understanding of the art of the stage and of the essential nature of criticism in the theatre, particularly self-criticism; an ability to perform before an audience, and to demonstrate an understanding of, and some skill in, acting techniques; sufficient technical skill

to produce satisfactory work in at least one of the theatrical arts or crafts; an understanding of the processes of theatrical production; and an ability to research imaginatively, selectively and with persistence. All students must study five compulsory components: performance skills; world theatre studies; practical play analysis; theatre production; and an individual project.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

THEORY OF KNOWLEDGE, INTERNATIONAL BACCALAUREATE

0560 (TOK IB)

Theory of Knowledge, International Baccalaureate is unique to the International Baccalaureate Organization and is an interdisciplinary requirement intended to stimulate critical reflection on the knowledge and experience gained inside and outside the classroom. The 100-hour course challenges students to question the bases of knowledge, to see the consilience between the academic disciplines, to be aware of subjective and ideological biases, and to develop the ability to analyze evidence that is expressed in rational argument. It is a key element in encouraging appreciation of other cultural perspectives.

- Recommended Grade Level: Grades 11 and 12
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- A Career Academic Sequence or Flex Credit course

VISUAL ARTS HIGHER LEVEL, INTERNATIONAL BACCALAUREATE

4090 (VA H IB)

Visual Arts Higher Level, International Baccalaureate provides students with the opportunities to make personal, sociocultural and aesthetic experiences meaningful through the production and understanding of art. It exemplifies and encourages an inquiring and integrated approach towards visual arts in their various historical and contemporary forms and promotes visual and contextual knowledge of art from various cultures. The course enables students to learn about themselves and others through individual and collaborative engagement with the visual arts. The core elements in common to each course are introduction to art concepts, criticism and analysis, acquisition of studio technical and media skills, and relation of art to sociocultural and historical contexts. This course is for the specialist visual arts student with creative and imaginative abilities, who may pursue the visual arts at university or college level. It consists of two compulsory parts: studio work—the practical exploration and artistic production; and research workbooks—-independent critical research and analysis, visual and written, in more than one culture.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

VISUAL ARTS STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
4092 (VA S IB)

Visual Arts Standard Level, International Baccalaureate provides students with the opportunities to make personal, sociocultural, and aesthetic experiences meaningful through the production and understanding of art. It exemplifies and encourages an inquiring and integrated approach towards visual arts in their various historical and contemporary forms and promotes visual and contextual knowledge of art from various cultures. The course enables students to learn about themselves and others through individual and collaborative engagement with the visual arts. The core elements in common to each course are introduction to art concepts, criticism and analysis, acquisition of studio technical and media skills, and relation of art to sociocultural and historical contexts. This course is for the specialist visual arts student with creative and imaginative abilities, who may pursue the visual arts at university or college level. It consists of two compulsory parts: studio work—the practical exploration and artistic production; and research workbooks—independent critical research and analysis, visual and written, in more than one culture.

- Recommended Grade Level: Grades 11 and 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills a Fine Arts requirement for the Core 40 with Academic Honors diploma or counts as a Directed Elective or Elective for any diploma
- A Career Academic Sequence or Flex Credit course

WORLD LANGUAGE AB INITIO STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
2310 (WL AIS IB)

World Language AB Initio Standard Level, International Baccalaureate is a world language course for students with little or no previous experience in learning the target language and is offered for twelve languages. This course provides an opportunity for students to further their linguistic skills by taking up a second world language or for students to learn a world language for the first time. The course concentrates on the acquisition of language necessary for practical communication in a variety of everyday situations and also focuses on development of the four primary language skills of listening, speaking, reading and writing. This course further enables students to acquire a basic awareness of the target cultures through the study of a core-syllabus and a language-specific syllabus.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a World Language Course for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an Elective or Directed Elective for any diploma
- A Career Academic Sequence or Flex Credit course

WORLD LANGUAGE B HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
2306 (WLB H IB)

World Language B Higher Level, International Baccalaureate is a world language course for students with two to five years previous experience in learning the target language and prepares students to be successful on the International Baccalaureate exam for the target language. This course prepares students to use the target language appropriately in a range of situations and

contexts and for a variety of purposes and also focuses on language acquisition and development in the four primary language skills of listening, speaking, reading, and writing. Language skills are developed through the study and use of a range of written and spoken material, which extends from everyday oral exchanges to literary texts related to the target cultures. The course is further designed to promote an awareness of, and sensitivity to, the cultures related to the language studied.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Counts as a World Language course for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an Elective or Directed Elective for any diploma
- A Career Academic Sequence or Flex Credit course

WORLD LANGUAGE B STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
2308 (WLB S IB)

World Language B Standard Level, International Baccalaureate is a world language course for students with two to five years previous experience in learning the target language and prepares students to be successful on the International Baccalaureate exam for the target language. This course prepares students to use the target language appropriately in a range of situations and contexts and for a variety of purposes, and also focuses on language acquisition and development in the four primary language skills of listening, speaking, reading, and writing. Language skills are developed through the study and use of a range of written and spoken material, which extends from everyday oral exchanges to literary texts related to the target cultures. The course is further designed to promote an awareness of, and sensitivity to, the cultures related to the language studied.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Counts as a World Language Course for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or as an Elective or Directed Elective for any diploma
- A Career Academic Sequence or Flex Credit course

WORLD LITERATURE A2 HIGHER LEVEL, INTERNATIONAL BACCALAUREATE
2312 (WLIT H IB)

World Literature A2 Higher Level, International Baccalaureate is a language and literature course for bilingual speakers and for highly competent users of the target language, giving students the opportunity to develop and refine their language skills. This course develops students' ability to communicate clearly, fluently, and effectively, as well as enabling students to engage in critical examination of a wide range of texts. Additionally, this course includes an exploration of the cultures related to the target language.

- Recommended Grade Level: Grades 11 and 12
- Credits: 4 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course

WORLD LITERATURE A2 STANDARD LEVEL, INTERNATIONAL BACCALAUREATE
2314 (WLIT S IB)

World Literature A2 Standard Level, International Baccalaureate is a language and literature course for bilingual speakers and for highly competent users of the target language, giving students the opportunity to develop and refine their language skills. This course develops students' ability to communicate clearly, fluently, and effectively, as well as enabling students to engage in critical examination of a wide range of texts. Additionally, this course includes an exploration of the cultures related to the target language.

- Recommended Grade Level: Grades 11 or 12
- Credits: 2 semester course, 1 credit per semester
- Fulfills an English/Language Arts requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors and International Baccalaureate diplomas or counts as an Elective for any diploma
- A Career Academic Sequence or Flex Credit course